2003 JCAHO
News, tips, info, details, and ideas brought to you by the Clinical Center JCAHO Work Group

Volume 6, 2003

Medication-related quality data: medication errors, adverse drug reactions

What is a medication error?

Any preventable event that may cause or lead to inappropriate medication use or patient effect while the medication is in the control of the health care professional, patient, or consumer (adopted by Pharmacy and Therapeutics Committee, 1/99).

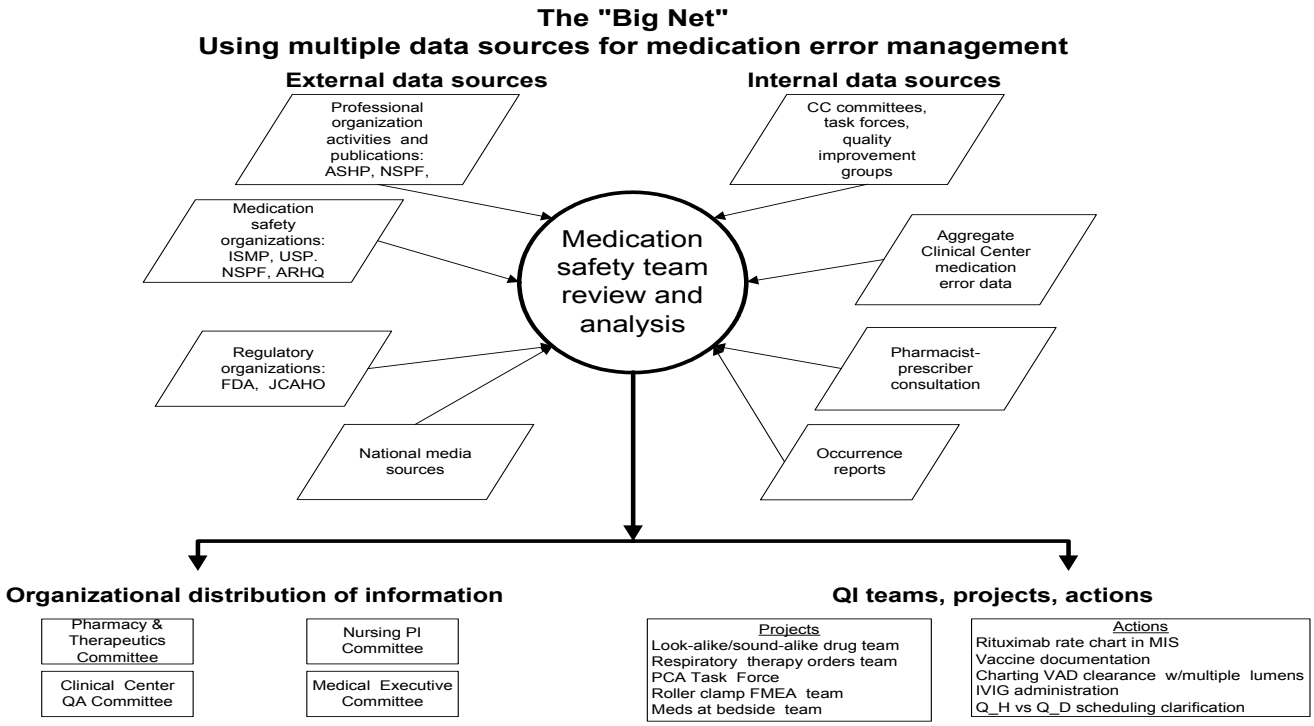
Any violation of the "5 Rights", i.e. wrong drug, wrong dose, wrong route, wrong patient, wrong time, or an omitted dose would qualify as an error.

How are medication errors detected, reported, and monitored?

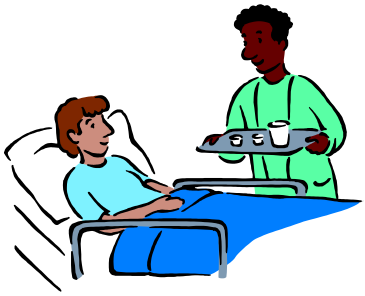
Detection: Any event suspected to be an error or that could cause an error should be reported, including errors that are caught before they get to the patient, characterized as a "near misses."
Reporting: The person observing the error enters a report into the hospital's occurrence reporting system. The definition is displayed each time as a guide.
Monitoring: A team of patient safety specialists from Nursing, Pharmacy, and the office of the Deputy Director for Clinical Care review all reports submitted. Errors are classified in standardized categories. Aggregate data are evaluated for notable trends.

What's being done with medication error data? Managers are notified each time an occurrence is entered about their area. In addition, they receive aggregated reports for use within the PI process with their staff. Results of data analysis are reported to medical staff and department quality committees. When significant trends or individual events are noted, recommendations are forwarded by the team to appropriate action groups. The process is illustrated below:

See next page→



Adverse drug reactions



What is an adverse drug reaction (ADR)? "Any effect of a drug that is *not intended or expected* and that is severe enough to result in the discontinuation of the suspected medication; or *any side effect of an experimental drug*." (adopted by P&T Committee, 8/97)
What do you do if you suspect an adverse reaction to a drug? For commercial drugs, an occurrence report is filed. For investigational drugs, the principal investigator should be notified immediately.
What happens to these reports? Pharmacy investigates reports to collect data using the ADR reporting form. The P&T Committee reviews reports for causality and recommends action, including whether to forward the report to the FDA. ADR's for investigational drugs are reported to the IRB. Individual nurses and prescribers may be involved in investigations. Aggregate data may be obtained from Dr. Karim Calis, coordinator of the Drug Information Center, located in the Clinical Center Pharmacy.

Here is an example of how the system worked for us!

A few isolated occurrences of omitted nebulizer treatments were noted in the ORS in FY 00 and 01, but appeared to be outlying events related to difficulty obtaining service.

In early FY 02, however, a significant cluster of events appeared in which nurses reported having to call RT to notify them of new respiratory therapy orders, despite appropriate entry via our CPOE system. Additionally there seemed to be no predictable pattern for how these orders printed in the nursing careplan; thus they were easily missed and omitted treatments seemed inevitable.

To ask questions of the Clinical Center core group email: askCCJCAHO@cc.nih.gov

An ad hoc team with representatives from RT, Pharmacy, Nursing, and DCRI was formed in summer 2001 to work on the problems identified in these occurrence reports. Investigative work by the DCRI analyst found the cause of the problem: a "convenience index" for ordering nebulizer treatments had been set up in the medication ordering module. Using this function created medication orders instead of respiratory therapy orders, which transmitted to Pharmacy, instead of Respiratory Therapy.

Recognizing that prescribers tended to look for medication names in the Pharmacy module, DCRI developed a creative solution to use this pathway to generate dual orders, both RT and medication, for nebulized meds, enabling Pharmacy to review medication orders and Respiratory Therapy to receive notification of new RT orders.

Ordering screens were simplified and updated to include new products and a type-in selection. Because this was new programming for our system, extensive testing and education preceded implementation in March 2002. Focused monitoring to test the effectiveness of this solution has not identified subsequent occurrences.

Visit the *New* Clinical Center JCAHO website
http://intranet.cc.nih.gov/od/jcaho/

See next page→